What do we expect of others?

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Abstract

We report experimental data on expectations about generosity in a dictator game in which dictators first divide the pie and then make a guess about the donation of other dictators. In our experiment, recipients have to guess the donation that they are going to receive from their *own* dictator as well as the donation of *other* dictator, whose choice does not affect their own payoffs. Our findings indicate that property rights are important to explain guesses, as dictators predict a smaller donation from other dictators than recipients do. We also observe that the involvement in the game is crucial as recipients expect other dictators to be more generous than their own dictator. When we compare guesses with actual donations, we see that dictators' guesses are positively correlated with their own transfer and that recipients overestimate the kidness of *other* dictators, as they expect them to be more kind than what they actually are.

Keywords: generosity, expectations, dictator game, fairness, property rights, involvement.

JEL Class.: C99, D63, D64.

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1   Introduction

What do we expect of others? Do we expect people to be kind? Do we expect them to behave as we do? Are our expectations, to some extent, related to our personal involvement in the outcome? Are they accurate or do we suffer from wishful thinking? And, if that were the case, are we optimistic or pessimistic about others' behaviour?

These questions are economically relevant as expectations play a major role in many different economic environments. In a principal-agent relationship, for example, principals may be kind to their employees with monetary or social-gift exchange (e.g., offering generous wages or providing costly attention to them) under the expectation that competing firms do it as well. Employees may form beliefs about how principals (should) behave, this affecting their decisions about giving up their current job or accepting a particular offer. Expectations about peers' performance can influence the level of exerted effort (Cabrales 2010), being also crucial to explain contributions to public good games (Fischbacher and Gachter 2010) or to determine the level of aspirations and happiness (see, among others, Frey and Sturtzer 2002; Clark 2008, McBride 2010). Expectations are also important in social interactions outside the market. Subjects are usually inclined toward playing a socially accepted strategy and, by the same token, they are not likely to choose strategies that are (expected) to be unpopular.[1]

In the current investigation we explore expectations about generosity in a non-strategic situation. We elicit expectations in a *Dictator* game in which dictators are provisionally allocated 10 Euros to be divided between themselves and recipients. Once the decision is made, dictators make guesses about what other dictators have done. Recipients are also invited to guess the donation that they are going to receive and what other dictators have donated to their corresponding recipient.[2] We incentivize dictators and recipients' beliefs by using a scoring rule that pays off depending on the accuracy of their guesses.

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[1]Elicitation of beliefs may have also other applications. In very recent paper, Ruff et al. 2013, uses expectations to check whether subjects who receive an electric stimulation "compute" information in a different way. Surprisingly, the stimulation affects subject's behaviour but not expectations.

[2]Aguiar *et al.* 2009 is the first paper that focuses on expected altruism in dictator games. They compare if females are expected to be more (less) generous than males. The conjectures seems to be true for female participants only.

Although our experimental design is simple, it allows us to test the main questions above in a clean manner. First, we can investigate whether dictators' donations are correlated with their guesses. Second, we can assess the impact of property rights on expected generosity by simply looking at dictators and recipients' expectations. When we compare recipients' expectations for themselves and for others, we investigate how the personal involvement affects expectations. Finally, we analyse the accuracy of beliefs by comparing guesses with actual behaviour.

Our results are substantive. Dictators' expectations (about other dictators) are positively correlated with their own behaviour and are in line with recipients' expectations about other dictators' behaviour. We find that recipients never expect that other dictators will donate the Nash equilibrium[3], but they are likely to expect selfish behaviour from their own dictator. This does not occur because recipients underestimate the kindness of their own dictator but rather because they do overestimate the kindness of other dictators, i.e., subjects do an accurate guess of their earnings –the money they are going to receive– but they expect that *other* dictators will be more generous than what they actually are.

The rest of the paper is organized as follows. In Section 2 we present our experimental design in detail. The main hypothesis are presented in Section 3. We analyse the experimental data in Section 4. Section 5 concludes.

2   Experiment Design

We run an experiment at the Laboratory for Research in Experimental Economics (LINEEX), University of Valencia. We recruited a total of 100 subjects, all of them undergraduate students from fields different from Economics and Business reporting no previous experience in experiments.

The experiment was conducted using the z-Tree software (Fischbacher, 2007). At the beginning of each session, we randomly assigned subjects a fixed role, kept constant through the session.

The experiment consisted of two phases. In the first one, subjects in the role of dictators ($n = 50$) were asked to make a division of the pie (10

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[3]The Dictator game is a decision problem rather than a pure game. However since this game is a simplified version of the Ultimatum its common to use the analogous terminology and refers to the zero donation as the Nash equilibrium.

Euros). The instructions (read aloud) made subjects aware that keeping the whole pie was acceptable (see Hoffman et al. 1994, 1996).

Once the division was made, subjects were asked to make another decision privately. Dictators had to guess the division of another dictator in the room (hereafter, treatment T_ρ). As for recipients ($n = 50$), they had to guess the donation of their own dictator (treatment T_γ), and the donation of another dictator in the room (treatment T_0). We control for the order effect in which recipients made their guesses (i.e., half of them made first the guesses for their own dictators with no significant difference using the Mann-Whitney U or the t-test, $p - values > 0.183$).[4]

A noteworthy aspect of our experimental design is that dictators made their decision about how to divide the surplus without knowing that participants in the experiment would make guesses about donations. In that regard, we avoid any strategic giving. Because beliefs are elicited *after* dictators made their donation, our device eliminates also the possibility of any *focusing* influence (Krupka and Weber 2009).[5]

To elicit expectations in a clear manner, guesses were incentivized as subjects were paid 5 Euros for right a guess, 1 Euro if they failed by just one unit, and 0 otherwise. Dictators received this amount in addition to the one that they decided to keep in the dictator game. As for recipients, we randomly chose the payment of one out of the two guesses (the one for their own dictator or the one for other dictators). Given the structure of our experimental design we do not expect our participants playing *hedging strategies* in T_γ[6] (see Blanco et al. 2010).

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[4] We deliberately leave aside the issue of second-order beliefs (i.e., beliefs about beliefs), while focusing our attention on expectations about actual behaviour (i.e., expected generosity).

[5] Krupka and Weber (2009) find that asking subjects about others' behaviour before playing the dictator game triggers pro-social behaviour, even when subjects do not think that others are generous.

[6] In T_γ recipients received this amount in addition to the donation of their matched dictator, so one may argue that recipients had incentives to hedge. Obviously an easy solution would be to pay just one of the tasks -or the donation or the guess- but the latter implies deception against the dictator (who did a donation that was not received by the recipient). Besides, hedging opportunities are not very prominent in our design: a) Dictators can make 11 donations, ranging from 0 to 10, therefore the problem is complex; b) Our scoring rule is far to be linear, that means that small deviations (errors in predictions) imply 0 earnings. In sum, we do expect that beliefs in our design should not be hardly affected by hedging.

Subjects earned on average 7 Euros for the 30 minute session. The procedure included a brief questionnaire that was used to collect demographic and other information to be used as control variables in the econometric analysis.

3   Hypotheses

Our target is to explore expectations on dictators' behaviour among different subsamples of players. In the case of dictators, they do not simply make a guess about how other dictators behave, but they indeed divided the surplus in the first stage of the game. Dictators can then perceive that they "own" of the game (Hoffman et al. 1994), and their expectations might differ from the one of recipients in what we call *property rights*. Recipients, unlike dictators, are not entitled with any *bargaining power* as they have a passive role in the division of the pie during the first phase. In other words, we want to check whether assigning the role of dictator/recipient in phase 1 may have any kind of *priming* effect on beliefs.

In addition, we want to compare what recipients expect to receive from their own dictator and what they expect that other dictators will donate to a third person.[7] Observe that recipients' expectations differ one from another in the *personal involvement*, that is, recipients are making guesses about their donation or about the donation another person would receive (Dana et al. 2007, Brañas-Garza et al. 2009). Recipients are involved in the decision when they make guesses about the behaviour of their own dictator, rather than guessing the amount that other subject will receive. In that later case, recipients act as expectator so that some considerations such as moral bias may disappear (see Croson and Konow, 2009).

In our experiment, we consider the case in which recipients make guesses about other dictators as the baseline situation. The other two elicited guesses measure the effect of property rights and personal involvement, as it is shown in Table 1.

The comparison between T_0 and T_ρ refers then to the effect of property

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[7]It is important to note that the comparisons between recipients' guesses about their own dictator (T_γ) and other dictator (T_0) are within-subjects while comparing dictators and recipients' guesses about other dictators (treatments T_ρ and T_0 respectively) requires a between-subjects analysis. It's important to recall here the absence of order-effect in both $T_0 \rightarrow T_\gamma$ and $T_\gamma \rightarrow T_0$ ($p - values > 0.183$).

Table 1: Treatments: T_ρ, T_γ and T_0

Treat.	Role	Guessed donation	Prop. Rights	Involvement
T_ρ	Dictator	*other* dictator	Yes	No
T_γ	Recipient	*own* dictator	No	Yes
T_0 (base.)	Recipient	*other* dictator	No	No

rights since both guessers are not involved in the outcome (i.e., they do not predict the amount that *they* are going to receive), but dictators may have some feelings about property rights. As for treatments T_0 and T_γ, there exists a difference regarding personal involvement in the situation since both guesses concern recipients' expectations, but in both cases recipients are not supposed to consider they own the game.

Next we present our two main hypotheses that we want to reject.

Hypothesis 1 (Property rights). There is no effect of *property rights* on guesses and dictators predict for other dictators the same behaviour that recipients predict; i.e., $\hat{g}^{T_\rho} = \hat{g}^{T_0}$.

A clear alternative for Hypothesis 1 is to consider that dictators, because they have been entitled with *property rights* during the first phase, perceive that they "own" of the game and therefore are entitled to keep a large fraction of the pie (Hoffman et al. 1994, 1996). Endowed with this sense of ownership dictators will then predict less generous sharing than recipients –that never feel themselves as dictators. In sum dictators might predict an smaller amount that recipients; i.e., $\hat{g}^{T_\rho} < \hat{g}^{T_0}$

The second hypothesis refers to recipients' behaviour and the role of the involvement in the outcome (Dana et al. 2007, Croson and Konow 2009, Brañas-Garza et al. 2009). For instance, Brañas-Garza et al. (2009) compares a situation when the dictator divides the pie between herself and a recipient with other treatment where the dictator divides a pie between two recipients, showing that giving differs in both treatments (see also Croson and Konow 2009).

Hypothesis 2 (Involvement) There is no effect of *involvement* on guesses and recipients expect from their dictator the same that they predict other

dictators donate; i.e., $\hat{g}^{T_\gamma} = \hat{g}^{T_0}$.

A priori, its not straightforward to predict how these differences in involvement may have an effect on beliefs formation. Recipients, when they are involved in the decision, might suffer from *wishful thinking* and expect to receive a higher amount from their own dictator; i.e., $\hat{g}^{T_\gamma} > \hat{g}^{T_0}$. Arguably, they may suffer from *pessimism* (victimization) and expect to receive a smaller donation from their own dictator; i.e., $\hat{g}^{T_\gamma} < \hat{g}^{T_0}$. Therefore there is not a clear-cut alternative for Hypothesis 2.

4   Results

In this section we present our main results. First, we provide some descriptive statistics of our data for guesses in Section 4.1. We estimate the effect of both treatments (T_ρ and T_γ) on individual guesses using a regression analysis in Section 4.2. We discuss the dictator's behaviour and the extent to which their expectations are in line with their donations in Section 4.3. Finally, we investigate the accuracy of beliefs in Section 4.4.

4.1   Descriptive Statistics

Figure 1, 2 and 3 presents an overview of our data by displaying the relative frequency of guesses made by dictators and recipients. The descriptive statistics are shown below each figure.
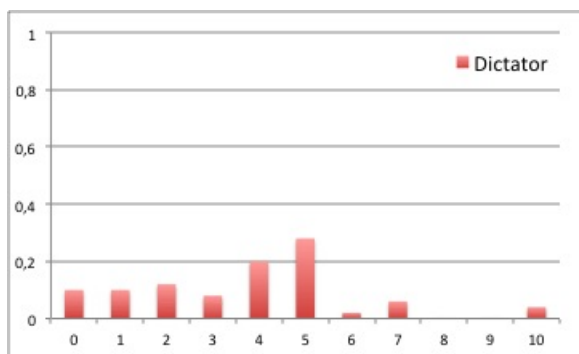

Figure 1: T_ρ: Dictator's guesses about other dictators behaviour; N=50, mean 3.40, st. dev.= 1.69; median=4 and mode=5. Note that 5 dictators guessed pure selfish behaviour.
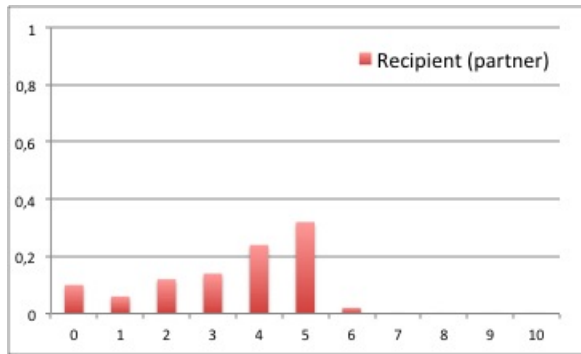
Figure 2: T_γ: Recipients' guesses about their own dictator; N=50, mean 3.72, st. dev.= 2.33; median=4 and mode=5. Note that 5 recipients expected to receive 0 euros.
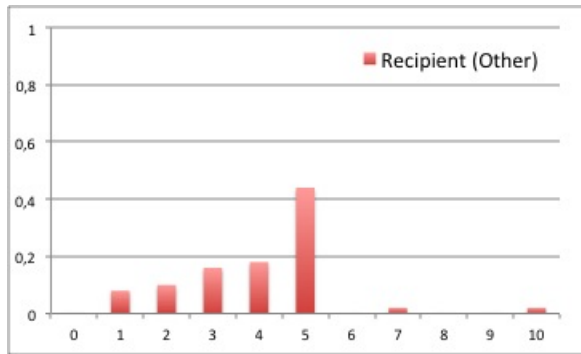

Figure 3: T_0: Dictator's guesses about other dictators behaviour; N=50, mean 4.02, st. dev.= 1.63; median=4 and mode=5. Note that no any single one recipient predicted selfish behaviour for *other* dictators.

We find that a substantial proportion of subjects predict equal split regardless of the treatment conditions although, in the baseline this fraction is substantially higher. Recall that in our baseline treatment (T_0) recipients guess the behaviour of other dictators (not their matched dictator), so neither property rights nor personal involvement are at stake. In that scenario, recipients expect that dictators will donate, on average, 4.02 Euros. Maybe surprisingly, they never expect the zero donation in that treatment. This does not occur when dictators make guesses for other dictators (T_ρ) or when recipients guess the behaviour of their matched dictator (T_γ). In these cases, roughly 10% of the subjects predict the zero donation, and average

8

expectations go down to 3.40 and 3.72 Euros respectively.

These findings suggest that property rights and involvement have a negative effect on guessing behaviour; more specifically, on the frequency of guesses that correspond to the zero donation. In the next section, we rely on a hurdle model and run a number of regressions controlling for demographics to assess the impact of the treatment conditions on guesses.

As we shall see, property rights and involvement increase the probability of predicting the zero donation but do not affect expectations, conditional on subjects guessing a positive amount. In other words, pure selfish behaviour is associated to both ρ and γ but impure altruism is not.

4.2   Econometric Analysis

We estimate in this section a hurdle model that assumes that the process by which some subject decides to guess zero or some amount is different from the process by which the subject decides how much to guess. We are assuming then that subjects make a two-step decision process: i) First, they decide whether dictators are giving money or not, that is $giving = 0$ or $giving > 0$. ii) Second and conditional on $giving > 0$, they asked themselves to guess the amount of money.

Therefore, the Hurdle model considers that subjects have to decide whether to guess any amount at all, and only then does the process determining the positive expectation apply. This modeling choice is particularly useful when the data presents a "spike" that needs to be addressed explicitly (such as the zero donation in our case) and has been recently used to analyse behavioural data in the dictator game (e.g., Engel 2011).

We use the hurdle model to investigate how property rights (T_ρ) and involvement (T_γ) affect subjects' decision about (i) whether to guess a positive donation or not and (ii) how much to guess. We report the maximum likelihood estimates in Table 2. In our first specification, we do not control for personal characteristics so that the vector of explanatory variables refers to two dummy variables for the treatment conditions (T_ρ and T_γ). We include the data collected in the questionnaire in our second specification. The standard errors (in brackets) are robust and clustered at the individual level.

Our first specification (Model (1)) highlights that property rights (T_ρ) and personal involvement (T_γ) do have a negative impact on expectations

Table 2: Regression analysis: Estimates of the Hurdle model

by reducing the probability of predicting a positive donation. As a result, the expectation of completely selfish subjects (Nash behaviour) is highly explained by both variables. These results are robust when we control for demographics in our second specification (Model (2)), where the treatment conditions T_ρ and T_γ do also reduce the probability of subjects predicting a positive donation.

Once we condition our analysis to subjects who expect a positive donation, we see that the treatment conditions (i.e., property rights and the personal involvement) are no longer significant. This finding is robust to the inclusion of the controls (Model (2)), some of which have a predictive power.

We summarise these findings as follows:

Result 1.

1.a) *Property rights (ρ) do have a negative impact on the of probability of guessing a positive donation, that is, dictators are less likely to predict a positive donation than recipients who make guesses for other dictators.*

1.b) *Involvement in the game (γ) does have a negative effect on the probability of guessing a positive, i.e., recipients are less likely to predict a positive donation when guesses refer to the behaviour of their own dictator.*

1.c) *Property rights and personal involvement do not affect expectations for those who predict positive donations, i.e., subjects who do not guess zero make similar guesses regardless of their role or their involvement.*

From Table 2 we may also learn more interesting things. For instance, subjects who score higher in the cognitive reflection test (CRT) and those with a higher taste for inequality predict significantly less generous behaviour. Subjects who think that majority of people can be trusted predict

10

a (slightly) higher donation. Strikingly enough, the score in the CRT or the fact of being inequality averse does not affect to predict purely selfish behaviour, but the degree of selfishness under positive giving.

Hence while the situation and the role –property rights and involvement– have increased the likelihood of believing that dictators are purely selfish; personal characteristics –CRT and inequality aversion– decrease expected generosity under the assumption of positive donations.

Our findings are important to shed light into the behavioural hypotheses presented in Section 3. Although our Result 1.c indicates that property rights and personal involvement do not affect expectations on generosity when we condition the analysis on subjects who expect a positive donation, our Results 1.b and 1.c highlight that subjects are less likely to predict generosity in the presence of property rights or personal involvement. We therefore conclude that the hypotheses are rejected. For Hypothesis 1 we find evidence for the alternative of property rights decreasing expectations about generosity. As for Hypothesis 2, we find that involvement operates also in the same direction, i.e. subjects involved in the game make more pessimistic predictions about the amount of money they are going to receive and therefore pessimism dominates wishful thinking.

4.3 Dictators: Behaviour and Expectations

One question to be addressed concerns the extent which dictators' expectations in the second phase align with their own behaviour in the first phase, that is, if dictators believe that other dictators behave as they did. To see dictators' behaviour, we plot plot the relative frequency of donations in Figure 4 (average donation =3.38). Note that Figure 4 is almost identical to Figure 1 and averages are also indistinguishable (3.40 vs. 3.38 Euros).[8]

Statistically, we find that dictators' expectations are positively correlated with their donations ($\phi = 0.283$, p-value=0.046). The Wilcoxon signed-rank cannot reject the null hypothesis that dictators' donations and expectations are drawn from the same population at any common significance level (p-value=0.3228).

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[8]The only remarkable exception refers to donations above 5 Euros, as dictators never give away more than 5 Euros, but roughly 10% of them predict that other dictators will do it.
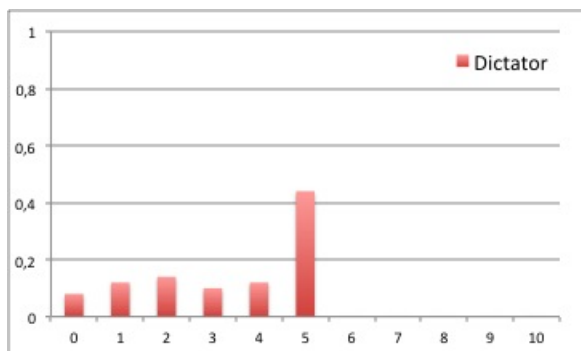
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Figure 4: Recipients' guesses about their own dictator; N=50, mean 3.38, st. dev.= 1.77; median=4 and mode=5. Note that 4 dictators were completely selfish.

Result 2.

Dictators expectations are positively correlated with their own behaviour, i.e. dictators believe other dictator behave the same as themselves.

Our finding that dictators' beliefs are related to their donations is in line with Iriberri and Rey-Biel (2013), where it is shown that the dictator's type (e.g., being selfish or inequality averse) determines her expectations about other dictators' donations.[9]

4.4 Accuracy of Beliefs

We have seen that property rights and involvement affect guessing behaviour. In this section, we investigate whether dictators and recipients make accurate beliefs, that is, if predictions fit observed behaviour.[10]

Figure 5 depicts the accuracy of beliefs by plotting the difference between subjects' guesses and the donation of the corresponding dictator. Figures 5.A1 and 5.A2 correspond to dictators' behaviour, this implies that dictators' expectations are matched (and compared) with the donation of their assigned dictator. Figure 5.A1 focuses on the density of *Accuracy*

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[9]In a previous study (Brañas-Garza and Rodriguez-Lara, 2013) we did not incentivize dictators' guesses and observed that dictators predict more selfishness by other dictators. As a referee suggested, this may be due to a desire towards boosting their own donation when beliefs are not incentivized (see also Krupka and Weber 2009).

[10]We're analysing here "ex-post" accuracy, that is, if guesses predict behaviour of the matched pair. A different measurement is "ex-ante" accuracy against *any* partner. From Figure 1 is easy to see that $guess = 5$ is the most beneficial one since subjects would earn the full prize (5 euros) in 44% of the times and the second prize (1 euro) in 12% cases.

($= guesses - observed$) and Figure 5.A2 shows the pair of values for every $i-$participant: subjects on the diagonal exhibit $full$ accuracy (since $guesses_i = observed_i$), pairs above the diagonal indicate that $guesses_i > observed_i$, that is the individual overestimates the kindness of the dictator and pairs below the diagonal indicate that $guesses_i < observed_i$, i.e. subject predicts more selfish behaviour than actually occurs. In other words, observations in the positive (negative) domain indicate that subjects are being optimistic (pessimistic) when making their guesses and overestimating (underestimating) the kindness of dictators.

Similarly, in Figures 5.B1 and 5.B2 recipients' expectations are compared with the donation of their own dictator. Figures 5.C1 and 5.C2 focus on recipients' guesses and observed behaviour of other randomly assigned dictator.

Also note that Figures 5.A1 to 5.C2 also show the gains that subjects received from their guesses in the experiment. Subjects on the diagonal got the full prize (5 euros) while those with a distance $= \pm 1$ received 1 euro and the remaining got zero euros in the second-stage of the experiment (see footnote 10). It's worth noting that about 25% of the participant do a perfect guess and this is true all along the treatments (although the dictators' density –A1– shows higher spreading).

In all the three treatments, the Shapiro - Wilk test cannot reject the null hypothesis that the accuracy of belief is normally distributed ($p-values > 0.207$). In addition, the t-test cannot reject the null hypothesis that dictators (recipients) make accurate guesses in the T_ρ (T_γ) treatment. The t-test, however, rejects the null hypothesis that the average accuracy is zero in the baseline treatment (t= 2.138, p-value = 0.037). We therefore conclude that recipients do accurate guesses about how their own dictator behaves. The latter is not true for the predicted behaviour of other-dictators since they do overestimate the altruistic behaviour. We summarise as follows.

Result 3.

Recipients overestimate the kindness of other dictators, whereas they (and dictators) make accurate guesses when are asked to predict the behaviour of their own (other) dictators.

This result may also indicate that both personal involvement and property rights make subjects aware of the situation and consequently they make accurate predictions.

5 Concluding remarks

Although many theoretical models have been put forward to *explain* behaviour in the dictator game (see Fehr and Schmidt 2003 for a review), the extent to which dictators are *expected* to behave is largely unexplored in the literature. Some recent exceptions are Aguiar et al. (2009), Rigdon and Levine (2011) or Chowdhury and Jeon (2013) which focuses on gender differences and investigate *i*) whether men and women in the role of recipients differ in their expectations with regard to dictators' donations; and *ii*) whether women and men in the role of the dictators are expected to behave differently. The recent papers by Krupka and Weber (2009) and Iriberri and Rey-Biel (2012) explore (and elicit) the role of dictators' expectations about other dictators' behaviour and try to establish a casual relationship between both.

This paper is a contribution to the stream of research that focuses on generosity by looking directly into *both* dictators' and recipients' expectations by means of a laboratory experiment. Our design is simple and considers a dictator game with two phases. In the first one, dictators make a donation to recipients. In the second one, we elicit beliefs using incentives. We extend the analysis to the expectation of recipients about the money they are going to receive and, in parallel, what they expect about other dictators.

We find that subjects (regardless of their role) largely expect generous behaviour. We also observe that property rights and personal involvement reduce the expectations of altruistic behaviour, supporting the idea that the equal split -the fair division- its a well known rule along the society. A further reading of this result is that $0 < donations < 5$ should be named "altruistic decisions" more cautiously.

Our data also suggests that dictators expect others to behave as they do. Overall, both dictators and recipients make accurate guesses along their tasks. However, recipients fail to do precise estimations of other dictators behaviour, in fact, they do expect other dictators to be more generous than their own dictator. The latter means that recipients overestimate others' dictators generosity in comparison they amount of money they expect to receive, that is, their guesses reveal a kind of victimisation.

This kind of wishful thinking about other dictators seems to be similar to what happens in real life. Many workers consider that all-other-bosses are more thorough than their own. This may cause early leavings in organiza-

tions since worker have optimistic predictions about other bosses. However, once subjects are settled in the new firm they adjust expectations and sadly realize that their boss actually belongs in same category as the previous one.

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Appendix A: Instructions and screenshots

The instructions of this Experiment are simple and if you follow them carefully you will receive a sum of money at the end of the experiment. It is confidential and no one will know how much money you have received.

Please feel free to ask any questions you may have by raising your hand. Aside from your questions, any type of communication with the other subjects in the room is prohibited and will lead to your immediate expulsion from the Experiment.

What is this experiment about?

Participants in this experiment will be randomly divided into two different groups (say, group A and group B). Each member of group A will be randomly matched with a member of group B to form a couple, which will remain being the same all through the experiment.

Each member of group A will be provisionally allocated 10 Euros. His/her task is to split the money (10 Euros) between himself/herself and the member of the group B with whom he/she has been matched. Any division is acceptable, even a division in which neither one of you receives any money.

Once the member of group A made his/her decision, the money will be divided accordingly. The experiment includes an additional phase that will be explained to each member of the couple separately, using the computer screen.

Remember that everything is absolutely confidential. No one will know how you have resolved this decision problem. Keep in mind that the DECISION you make is as REAL as the MONEY you have before you.

Thank you for your collaboration!

Screenshots (Phase 1):

Dictators

Subject A made the division of the 10 Euros choosing the amount for himself/herself and the amount they wanted to give to Subject B.

Recipients

Subjects B (recipients) were invite to do an extremely simple mathematical task to have them busy during phase 1. They were asked to complete the sequences 1, 2, 3, 4É and 5, 6, 7, 8, É Despite the laboratory consisted on separate cubicles, we chose this task to avoid subjects B identifying who were the dictators.

?

Instructions (Phase 2):

ROLE A (Dictators)

Now you have been randomly matched with another member of group A, who also made a division of the 10 Euros.

Next, we ask you to guess the amount that this member of group A gave to the subject B with whom he/she was matched.

If your guess is correct, you will be paid 5 additional Euros that will be added to the amount that you decided to keep during the first phase. If your guess deviates in +1 or -1 Euro, then you will receive 1 additional Euro. Otherwise, you will not receive any additional amount.

ROLE B (Recipients)

All members of group A have already made a decision. Next, we ask you to guess how they have done it. In particular, we ask you two things:[11]

- We ask you to guess how the member with whom you have been matched (your couple) has split the 10 Euros.

- You will be randomly matched with a member of group A that was not your couple. We ask you to guess how this member of group A (not your couple) has split the 10 Euros.

In both cases, you have to guess the amount that the member of group A gave to the member of group B. When you make both decisions, we will randomly select one of them to pay you some additional amount of money that will be added to the money that your couple decided to transfer you. In any of the cases, if your guess is correct, you will be paid 5 additional Euros. If your guess deviates in +1 or -1 Euro, then you will receive 1 additional Euro. Otherwise, you will not receive any additional amount.

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[11]We control for the order in which these two bullets appeared on the computer screen. The screenshots for each decision were sorted accordingly.

Screenshots (Phase 2):

(*) This instructions are common to dictators and recipients.

    Subjects received information about the scoring rule and had to guess the amount that the member of group A gave away.

    Because recipients had to make two decisions and dictators only one, we asked dictators to complete the same sequence of numbers that recipients completed during the first phase of the experiment (see Fig 2.A)
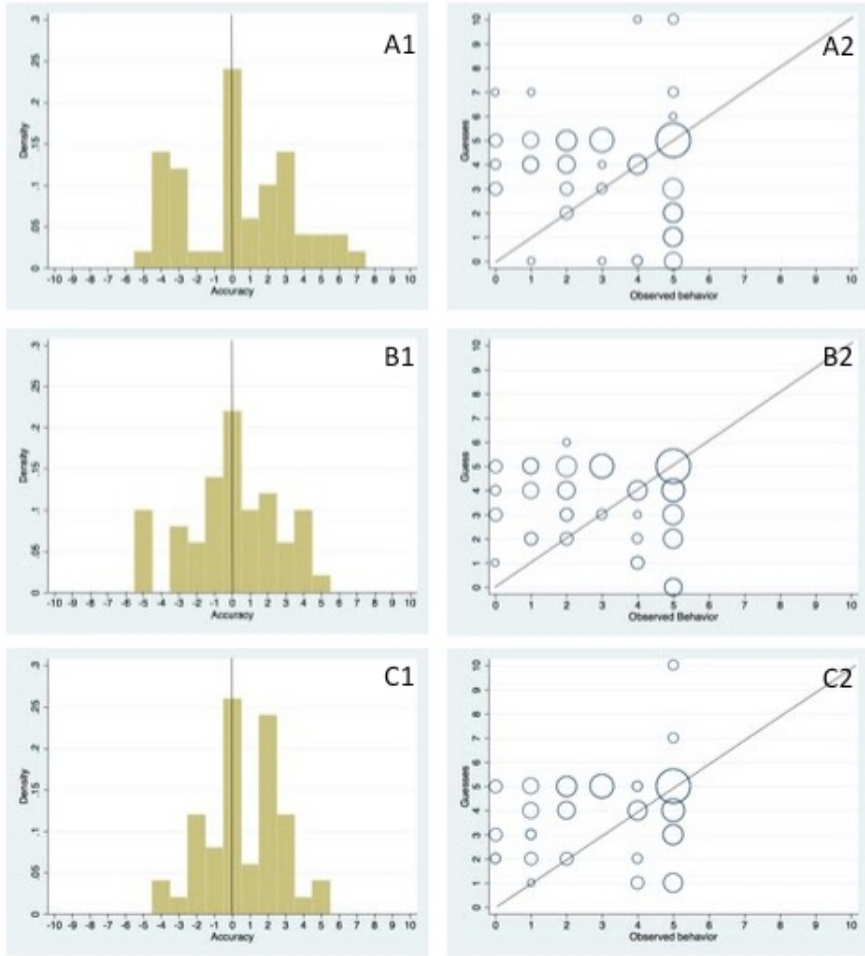
Figure 5: Density of *Accuracy* (*guesses − observed*) and pairs of (*guesses_i, observed_i*): T_ρ (panels A1 & A2), T_γ (panels B1 & B2) and T_0 (panels C1 & C2).

Como miembro del grupo A, tu tarea consiste en dividir los 10 Euros entre ti y el miembro del grupo B con el que has sido aleatoriamente emparejado.

Por favor, escribe la división que quieras llevar a cabo.

Para el miembro del grupo A (yo): [   ]
Para el miembro del grupo B: [   ]

Recuerda que todo es absolutamente confidencial. Nadie sabrá nunca cómo resolviste este problema de decisión. Recuerda también que la DECISION que tomes es REAL, como el dinero.

Decisión de A

OK

Has sido asignado aleatoriamente asignado como miembro del grupo B.

En estos momentos, el miembro del grupo A con el que has sido aleatoriamente emparejado está decidiendo la división de los 10 Euros.

Por favor, completa la siguiente secuencia de números **sin comas ni espacios** y pulsa "ok".

1, 2, 3, 4 [   ]
5, 6, 7, 8 [   ]

Pantalla de espera de B mientras A decide

OK

El miembro del grupo A con el que has sido emparejado ha llevado a cabo su división de los 10 Euros. A continuación te pedimos que digas cuánto crees que este miembro del grupo A te ha entregado.

Recuerda que si esta decisión sale elegida para el pago y aciertas te pagaremos 5 Euros adicionales. Si te equivocas en tu predicción en 1 Euro de más o de menos, recibirás 1 Euro adicional. Si te equivocas en tu predicción en más de 1 Euro, no recibirás ningún dinero adicional

Por favor, escribe la cantidad de Euros que creas que el miembro del grupo A con el que estás emparejado te ha entregado:

[   ]

Guess de B: DECISION 1

OK

Table 2. Regression analysis: estimates of the hurdle model.

Independent variables	Model (1)		Model (2)	
	Prob(Guess>0)	Guessed amount	Prob(Guess>0)	Guessed amount
Intercept	5.684***	-0.248***	5.759***	-0.079
	(0.028)	(0.059)	(0.71)	(0.17)
T_ρ (Property Rights)	-4.042***	0.029	-4.664***	0.026
	(0.244)	(0.099)	(0.32)	(0.09)
T_γ (Involvement)	-4.042***	-0.063	-4.461***	-0.067
	(0.244)	(0.057)	(0.31)	(0.06)
Women			0.503	0.030
			(0.32)	(0.07)
Age			-0.006	0.0002
			(0.02)	(0.005)
CRT			-0.404	-0.368**
			(0.67)	(0.18)
Trust			-0.202	0.152*
			(0.42)	(0.08)
Inequality			0.113	-0.211**
			(0.44)	(0.09)
Log pseudolikelihood	-126.545		-124.167	
Wald χ^2	638.81***		540.82***	
Observations	150		150	

Notes. The explanatory variables refer to the subject's gender (Women), the subjects' age (Age), the score in the Cognitive Reflection Test (CRT) in Frederick (2005), a dummy for the answer to the question in the General Social Survey: «Generally speaking, would you say that most people can be trusted (Trust=1) or that you cannot be careful in dealing with people (Trust=0)?», and a classic test of concerns for inequality that is contained in many Social Capital questionnaires: «Consider the following situation: Two secretaries with the same age do exactly the same work. However, one of them earns 20 euros per week more than the other. The one that is paid more is more efficient and faster, while working. Do you believe it is fair that one earns more than the other?» Inequality = 1 if the answer is no, and Inequality = 0 otherwise. Robust standard errors are reported in parentheses. Significant at *** 1%, **5% and *10%.